

What is claimed is:

1 1. A master slice semiconductor integrated circuit,
2 comprising:
3 at least two wiring layers for wirings; and
4 a plurality of clock buffers connected by clock wirings
5 in the form of a clock tree having at least two cascaded stages
6 to distribute clock signals to a plurality of sequential
7 circuits;

8 wherein said clock wiring among said clock buffers
9 comprises a wiring layer switching portion which switches a
10 wiring layer from a lower wiring layer of said at least two
11 wiring layers to an upper wiring layer of said at least two
12 wiring layers and then switches from said upper wiring layer
13 to said lower wiring layer.

1 2. The master slice semiconductor integrated circuit
2 according to claims 1, wherein said wiring layer switching
3 portion comprises a via wiring connecting said clock wiring
4 formed of said lower wiring layer and said clock wiring formed
5 of said upper wiring layer.

1 3. The master slice semiconductor integrated circuit
2 according to claims 1, wherein said clock buffers are selectors,
3 and said selectors comprise a multiplexer which select and
4 outputs a clock signal from a plurality of clock signals.

1 4. The master slice semiconductor integrated circuit
2 according to claim 1,

3 wherein said wiring layer switching portion comprises:
4 an output wiring which is formed of said lower wiring layer
5 and connects one end thereof to the clock output of the clock
6 buffer of a former stage;
7 an output side via wiring which connects one end thereof
8 to the other end of said output wiring and connects the other
9 end thereof to said upper wiring layer;
10 an input wiring which is formed of said lower wiring layer
11 and connects one end thereof to the clock input of the clock
12 buffer of a later stage; and
13 an input side via wiring which connects one end thereof
14 to the other end of said input wiring and connects the other
15 end thereof to said upper wiring layer; and
16 wherein said upper wiring layer is a wiring layer for
17 customized wirings, and said lower wiring layer is a wiring layer
18 for fixed wirings.

1 5. The master slice semiconductor integrated circuit
2 according to claim 4, further comprising a wiring which is
3 formed of said upper wiring layer and connects the other end
4 of said output side via wiring and the other end of said input
5 side via wiring.

1 6. The master slice semiconductor integrated circuit
2 according to claim 4, further comprising a wiring which is
3 formed of said upper wiring layer and connects the other end
4 of said input side via wiring and a fixed voltage source.

1 7. The master slice semiconductor integrated circuit
2 according to claim 4, further comprising a wiring which is
3 formed of said upper wiring layer and connects an output of
4 a circuit other than said clock buffers and the other end of
5 said input side via wiring.

1 8. The master slice semiconductor integrated circuit
2 according to claim 4, further comprising a wiring which is
3 formed of said upper wiring layer and connects an output of
4 a circuit other than said clock buffers and the other end of
5 said output side via wiring.

1 9. The master slice semiconductor integrated circuit
2 according to claims 4, further comprising a wiring which has
3 a dummy load capacity equivalent to a load capacity connected
4 to said input side via wiring, and is formed of said upper
5 wiring layer and connected to the other end of said output
6 side via wiring.

1 10. A wafer for master slice for manufacturing the master
2 slice semiconductor integrated circuit according to claim 1.